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PART II

ENVIRONMENTAL PROTECTION AGENCY

Office of the Administrator

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MOTOR VEHICLES

FEDERAL CERTIFICATION TEST RESULTS FOR 1971 MODEL YEAR

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Motor Vehicles

Section 206(e) of the Clean Air Amendments of 1970 directs the Administrator of the Environmental Protection Agency to announce in the FEDERAL REGISTER the results of certification tests conducted on new motor vehicles to determine conformity with Federal standards for the control of air pollution caused by motor vehicles.

FEDERAL EMISSION STANDARDS

The standards that apply to the control of emissions from 1971 model year vehicles were prescribed as regulations on June 4, 1968. These regulations, appearing at 45 CFR Part 1201 set maximum allowable emission levels for new gasoline fueled heavy-duty engines (for use in trucks and buses), diesel fueled heavy-duty engines (for use in trucks and buses), and gasoline fueled light-duty vehicles (automobiles). Heavy-duty gasoline fueled engines are required to meet emission standards of 275 parts per million (p.p.m.) for hydrocarbons (unburned gasoline) and 1.5 percent for carbon monoxide (a poisonous gas). Heavy duty diesel engines must meet Federal smoke emission standards of 40 percent opacity during acceleration and 20 percent opacity during lugging. These opacity standards limit the darkness of the exhaust smoke to a light gray haze.

The standards for automobiles prohibit all crankcase emissions, and limit allowable exhaust emissions and evaporative emissions from the fuel system. The exhaust standards allow 1971 automobiles to emit no more than 2.2 grams per mile of hydrocarbons and 23 grams per mile of carbon monoxide from the tailpipe. To meet the evaporative emission standard, automobiles must be equipped with systems to limit the loss of gasoline by evaporation from the carburetor and the fuel tank to less than 6 grams per test (or approximately 0.5 gram per mile).

It is useful to compare the standards with the emission levels of uncontrolled vehicles, i.e., vehicles built prior to model year 1968, the first year in which Federal emission control standards were applicable. Vehicles without crankcase controls vented about 3.7 grams hydrocarbons per mile from the crankcase. The average uncontrolled vehicle also produced tailpipe emissions of 11.2 grams per mile of hydrocarbons and 73.0 grams per mile carbon monoxide, when measured in accordance with the test procedures used to determine compliance with the 1971 model year standards. Uncontrolled vehicles are estimated to emit about 2.8 grams per mile of hydrocarbons by evaporation from the gasoline tank and the carburetor.

FEDERAL CERTIFICATION PROCEDURES

Under the provisions of the Clean Air Act, it is unlawful to offer for sale new motor vehicles which are not in conformity with Federal regulations. Prior to the beginning of each new model year, automobile manufacturers apply to the Administrator of the Environmental Protection Agency for a Certificate of Conformity for each model they wish to produce for that year. The Federal regulations prescribe a number of requirements which a manufacturer must meet before the Administrator will grant certification. These requirements are designed to provide the Administrator with information to assure that the vehicles to be produced will conform with the regulations.

In advance of production, the manufacturers are required to provide the Administrator with extensive test data demonstrating the effectiveness of the vehicle's emission control and the ability of the emission control system to remain effective over the expected life of an average vehicle (100,000 miles). In addition to the submission of test data on the prototype test vehicles, the manufacturers are required to deliver the test vehicles to the Federal Testing Laboratory at Ypsilanti, Mich. At this facility the vehicles are retested by Federal engineers to assure conformity with the regulations.

The regulations require a manufacturer to test a selection of prototype vehicles which will represent the models to be sold to the public. These vehicles are grouped into two separate fleets. One fleet, known as the emission data fleet, is designed to reflect the emissions of relatively new vehicles. The vehicles in this fleet are driven for 4,000 miles, to break in the engine and stabilize emissions; they are then tested for compliance with the standards. The second fleet, known as the durability data fleet, is designed to determine the capability of the emission control system to keep emissions within the standards over the expected useful life of the vehicle. The vehicles in this fleet are driven for 50,000 miles and tested for compliance with the regulations every 4,000 miles. The test data from these two fleets are combined in accordance with formulae specified in these regulations, and a deterioration factor established for each group of engines. The deterioration factors are then applied to the 4,000-mile emission test values. If the motor vehicles so tested are found to conform with the regulations, the manufacturer is granted a Certificate of Conformity.

FEDERAL CERTIFICATION DATA

The average emission levels measured for each model certified as of March 1, 1971, for the 1971 model year are listed below. This listing should not be construed as an endorsement by the Environmental Protection Agency of any manufacturer's vehicles or models.

The detailed test results are available for public inspection at the Air Pollution Control Office, Main Terminal Building, Willow Run Airport, Ypsilanti, Mich., and may be obtained upon written requset to the Administrative Officer at the same address. Requests should specify the vehicle of interest by make, model, model year, and engine displacement. Fees for supplying data will be charged according to the following schedule:

1. Search for records—$3 per hour.
2. Reproduction, duplication, or copying of records—$0.25 per page.
3. Certification of authentication of records—$5 per certification.
4. Forwarding material to destination, postage, insurance, and special fees will be charged on an actual cost basis.

The emission levels listed below summarize the test data developed in the certification program.

Dated: April 2, 1971.

WILLIAM D. RUCKELSHAUS,
Administrator.

1971 LIGHT DUTY VEHICLES

Manufacturer (Models)	Engine		Certification levels		
			Exhaust emissions		Evaporative emissions
	Number of cylinders	Displacement (cubic inches)	Hydrocarbons (grams/mile)	Carbon monoxide (grams/mile)	Hydrocarbons (grams/test)
U.S. MANUFACTURERS					
American Motors Corporation:					
Gremlin, Hornet, Matador, Javelin	6	232	1.49	14.17	0.68
Gremlin, Hornet, Javelin, Matador, Ambassador	6	258	1.49	15.35	0.26
Javelin, Hornet, Matador, Ambassador	8	304	1.10	9.41	1.36
Hornet, Javelin, Matador, Ambassador	8	360	1.64	11.97	0.51
Javelin, Matador, Ambassador	8	401	1.89	11.68	0.95
Avanti Motor Corporation:					
Avanti II	8	350	1.03	6.52	3.65
Checker Motors Corp.:					
Checker Taxi Cab Model A-11, A-11E, Marathon Model A-12, A-12E, A-12W	6	250	2.00	14.32	0.22
Checker Taxi Cab Model A-11, A-11E, Marathon Model A-12, A-12E, A-12W	8	350	1.09	8.11	1.65
Chrysler Corp.:					
Plymouth: Valiant, Duster, Barracuda; *Dodge:* Dart, Challenger, D100, Van B100, Van B200	6	198	2.15	14.22	0.08
Plymouth: Valiant, Barracuda, Belvedere; *Dodge:* Dart, Challenger, Coronet, Sportsman B100, B200, B300, Van B100, B200, Dodge D-100, Dodge W-100	6	225	1.99	15.76	0.02

1971 LIGHT DUTY VEHICLES—Continued

Manufacturer (Models)	Engine: Number of cylinders	Engine: Displacement (cubic inches)	Certification levels: Exhaust emissions: Hydrocarbons (grams/mile)	Certification levels: Exhaust emissions: Carbon monoxide (grams/mile)	Certification levels: Evaporative emissions: Hydrocarbons (grams/test)
Plymouth: Valiant, Barracuda, Belvedere; *Dodge:* Dart, Challenger, Coronet, Sportsman B100, B200, B300, Van B100, B200, Dodge D-100, Dodge W-100	8	318	2.16	14.33	0.05
Plymouth: Duster, 'Cuda, 'Cuda (3-2V), Road Runner; *Dodge:* Dart, Challenger, Challenger (3-2V), Charger	8	340	2.01	17.94	0.16
Plymouth: Fury; *Dodge:* Polara, Van B100, B200, Sportsman B100, B200; *Chrysler:* Royal	8	360	1.82	19.01	0.05
Plymouth: Barracuda, Fury, Satellite, 'Cuda, Road Runner; *Dodge:* Challenger, Coronet, Charger, Polara, Monaco, Dodge D-100, Dodge W-100; *Chrysler:* Newport, Royal, Town & Country	8	383	1.91	14.61	0.11
Plymouth: 'Cuda, Road Runner, GTX; *Dodge:* Challenger, Charger	8	426	2.11	21.48	0.26
Plymouth: Fury, GTX, 'Cuda (3-2V), Road Runner (3-2V), GTX (3-2V), Fury (3-2V); *Dodge:* Polara, Monaco, Charger, Dodge D-100, Challenger (3-2V), Charger (3-2V); *Chrysler:* 300, New Yorker, Town & Country, Newport, Imperial LeBarron	8	440	1.84	18.33	0.27
Dynamic Corporation of America: Dyna-Truck Division: M-800	6	232	1.50	12.71	0.65
Ford Motor Co.:					
Pinto	4	98	1.58	15.70	0.00
Pinto	4	122	1.67	15.42	0.01
Comet, Maverick, Bronco	6	170	1.96	6.81	0.00
Maverick, Comet	6	200	1.92	9.56	0.42
Ford, Econoline, F-100 Pickup	6	240	1.45	10.54	2.68
Fairlane, Maverick, Mustang, Montego, Comet, Post Office Delivery	6	250	1.99	14.23	1.07
F-100 Pickup	6	300	1.73	11.30	0.01
Ford, Fairlane, Mustang, Boss, Montego, Comet, Cougar, Econoline, Bronco, F-100 Pickup	8	302	1.60	7.61	0.48
Ford, Fairlane, Mustang, Mercury, Montego, Cougar, GT Cougar, GT Mustang, Boss Mustang	8	351	1.83	14.28	0.20
F-100 Pickup	8	360	1.85	14.71	0.45
Ford, F-100 Pickup	8	390	2.00	8.19	0.14
Ford, Mercury	8	400	1.88	13.59	0.41
Ford, Mercury, Fairlane, Montego, Thunderbird, Fairlane CJ, Mustang CJ, Montego CJ, Cougar CJ, Fairlane SCJ, Mustang SCJ, Montego SCJ, Cougar SCJ	8	429	1.66	12.79	1.03
Lincoln, Mark III	8	460	1.77	10.94	0.08
General Motors Corp.:					
Vega	4	140	1.51	15.76	0.08
Chevrolet Division: Chevelle, Chevrolet, Camaro, El Camino, Nova, Light Duty Truck. *Pontiac Division:* Lemans, Firebird. *Oldsmobile Division:* F-85. *Buick Division:* Skylark. *GMC Division:* GMC Sprint, Light Duty Truck	6	250	1.67	14.85	0.16
Chevrolet Division: Light Duty Truck	6	292	1.72	18.17	0.11
Chevrolet Division: Chevelle, Chevrolet, Camaro, El Camino, Nova, Light Duty Truck. *GMC Division:* GMC Sprint, Light Duty Truck	8	307	1.73	8.55	0.11
Chevrolet Division: Chevelle, Chevrolet, Camaro, Monte Carlo, Nova, El Camino, Corvette, Light Duty Truck. *GMC Division:* GMC Sprint, Light Duty Truck	8	350	1.27	11.94	0.46

1971 LIGHT DUTY VEHICLES—Continued

Manufacturer (Models)	Engine: Number of cylinders	Engine: Displacement (cubic inches)	Certification levels: Exhaust emissions: Hydrocarbons (grams/mile)	Certification levels: Exhaust emissions: Carbon monoxide (grams/mile)	Certification levels: Evaporative emissions: Hydrocarbons (grams/test)
Pontiac Division: Lemans, Pontiac, Firebird	8	350	1.70	16.36	0.09
Oldsmobile Division: F-85, Oldsmobile	8	350	1.53	12.05	0.07
Buick Division: Skylark, Buick	8	350	1.29	15.65	0.14
Chevrolet Division: Chevrolet	8	400	1.07	12.49	0.17
Pontiac Division: Lemans, Pontiac, Firebird, Grand Prix	8	400	1.54	14.92	0.09
Chevrolet Division: Chevelle, Chevrolet, Monte Carlo, Camaro, El Camino, Light Duty Truck. *GMC Division:* GMC Sprint, Light Duty Truck	8	402	1.17	12.35	0.05
Chevrolet Division: Chevelle, Chevrolet, Monte Carlo, El Camino, Corvette. *GMC Division:* GMC Sprint	8	454	1.22	12.75	0.36
Pontiac Division: Lemans, Pontiac, Firebird, Grand Prix	8	455	1.35	15.48	0.07
Oldsmobile Division: F-85, Oldsmobile, Toronado	8	455	1.18	14.93	0.13
Buick Division: Skylark, Buick Electra, Riviera	8	455	1.07	13.36	0.18
Cadillac Division: Cadillac	8	472	1.08	13.69	1.15
Cadillac Division: Cadillac	8	500	0.82	16.36	0.47
International Harvester Co.:					
Scout 800A, Scout 810	4	196	1.45	15.38	0.19
Scout 800A, Scout 810, 1000, 1100	6	232	1.54	13.58	0.80
Scout 800A, Scout 810, 1000, 1100	8	304	1.74	11.93	0.21
Scout 810, 1000, 1100	8	345	1.90	14.66	0.60
1000, 1100	8	392	1.62	17.07	2.33
Jeep Corp.:					
Universal, Jeepster	4	134	1.67	14.90	0.46
Universal, Jeepster	6	225	1.88	20.44	1.04
Gladiator, Wagoneer, Jeepster	6	232	1.91	17.35	0.55
Wagoneer, Gladiator	6	258	1.75	10.66	0.80
Wagoneer, Gladiator	8	304	1.95	11.90	0.40
Wagoneer, Gladiator	8	350	2.12	18.59	2.20
Wagoneer, Gladiator	8	360	2.06	17.81	1.64
FOREIGN MANUFACTURERS					
Alfa Romeo S.p.A. (Italy) 1750 Spider, GT, Berlina	4	108.6	1.42	10.82	0.06
Audi NSU Auto Union AG (Germany): Super 90 Variant, Super 90 Sedan, 100 LS	4	107.5	1.83	19.10	0.76
Bayerische motoren werke AG (Germany):					
BMW 1600-2	4	96.0	1.44	17.01	0.19
BMW 2002	4	121.3	1.27	16.19	0.26
BMW 2800, 2800 CS	6	170.0	1.76	21.34	0.24
BMW 2500	6	152.3	1.60	18.35	0.17
British Leyland Motor Corp. of Australia, Ltd. (Australia): Moke	4	77.9	1.25	13.65	2.93
British Leyland Motor Corp., Ltd. (England):					
Triumph Spitfire	4	79	1.16	12.00	0.36
Triumph G.T.6	6	122	1.51	11.90	0.36
Triumph TR.6	6	152	1.54	16.90	0.37
Triumph Stag	8	183	1.83	20.10	0.36
Austin America, MG Midget	4	77.9	1.25	13.65	2.93
MGB Sports, MGB GT	4	109.6	1.27	10.90	0.00
Jaguar XK-E Type Coupe, Roadster, 2+2 Coupe, XJ6 Sedan	6	258	1.30	12.97	0.36
Jaguar XJ25 Roadster and Coupe, XJ12 Sedan	12	326	1.61	16.96	0.00
Land Rover 2¼ Litre	4	139.5	1.32	17.36	0.36
Rover 3500 S	8	215	1.71	18.12	0.36
Rover 2000 TC	4	120.8	1.54	19.22	0.36
Chrysler France (France): Simca 1204, Simca 1100	4	73	1.48	13.81	0.30
Chrysler United Kingdom, Ltd. (England):					
Plymouth Cricket	4	91	1.85	11.10	0.03
Sunbeam Alpine GT	4	105	1.71	11.09	0.00

1971 LIGHT DUTY VEHICLES—Continued

Manufacturer (Models)	Engine: Number of cylinders	Engine: Displacement (cubic inches)	Certification levels: Exhaust emissions: Hydrocarbons (grams/mile)	Certification levels: Exhaust emissions: Carbon monoxide (grams/mile)	Certification levels: Evaporative emissions: Hydrocarbons (grams/test)
Citroen S. A. Automobiles (France):					
ID 19	4	121	0.76	15.74	0.00
DS 21	4	132.5	1.56	18.99	0.00
Ferrari S.p.A. Sefac (Italy):					
365 GTB.4., 365 GTB.4 Spider	12	268	1.49	13.69	1.84
Fiat S.p.A. (Italy):					
850 Sport Coupe, Sport Spider, Racer	4	55.08	1.58	17.93	1.39
128 Sedan	4	68.10	1.63	17.47	1.28
124 Special Sedan, Special Station Wagon, Sport Spider, Sport Coupe	4	87.75	1.45	14.53	1.18
124 Sport Spider 1600, 124 Sport Coupe 1600	4	98.13	1.63	18.72	0.89
Ford Motor Co., Ltd. (England):					
Capri	4	97.6	1.37	20.05	0.00
Capri	4	122	1.27	9.26	0.00
Lamborghini S.p.A. automobili Ferruccio (Italy):					
Espada, Jarama, Miura	12	239.76	1.22	11.69	1.58
Lotus Cars, Ltd. (England):					
Elan, Elan+2	4	95.1	1.29	11.65	0.07
Europa	4	95.5	1.21	20.84	0.00
Maserati S.p.A. Officini Alfieri (Italy):					
Ghibli 4900, Indy 4900	8	303	0.41	14.13	1.44
Daimler-Benz Aktiengesellschaft (Mercedes-Benz) (Germany):					
220/8	4	134.0	1.26	14.00	0.00
250/8, 250 C/8, 280 S/8, 280 SE/8, 280 SEL/8, 280 SL/8	6	169.5	1.60	12.23	3.08
280 SE/9 Coupe, 280 SE/9 Convertible, 300 SEL	8	213.5	1.52	7.28	0.05
300 SEL/8, 600	8	386.3	1.83	19.11	0.96
Mitsubishi Motors Corp. (Japan):					
Dodge Colt	4	97.5	1.26	12.21	0.06
Morgan Motor Co., Ltd. (England):					
Morgan Plus 8	8	215	1.70	10.27	0.36
Nissan Motor Co., Ltd. (Japan):					
Datsun 1200 Sedan, Coupe	4	71.5	1.92	13.03	0.34
Datsun Sports 1600 SPL	4	97.3	1.63	9.54	0.40
Datsun 1600 Sedan, Wagon, Pickup	4	97.4	1.70	14.05	0.53
Datsun 1800 Sedan	4	110.8	1.78	12.50	0.83
Datsun Sports 2000	4	120.9	1.42	12.59	0.30
Datsun Sports 2400	6	146.0	1.76	15.37	0.86
Audi NSU Auto Union A.G. (NSU) (Germany):					
NSU 1200C	4	71.8	1.76	19.89	0.73
Adam Opel A.G. (OPEL) (Germany):					
Opel	4	65.8	1.93	12.41	0.44
Opel, GT, Opel 1900	4	115.8	1.71	13.64	0.33
Automobiles Peugeot (France):					
304 Sedan, Station Wagon	4	78.59	1.79	15.47	0.00
504 Sedan, Station Wagon	4	120.3	1.41	15.65	0.02
DR. ING. h.c.F. Porsche KG (Germany):					
Porsche 914/6	6	121.5	1.79	13.48	0.32
Porsche 911T, 911E, 911S	6	133.9	1.74	18.14	0.27
Renault, Regie Nationale Des Usines (France):					
Renault 10	4	67.61	1.41	15.66	0.00
Renault 10	4	78.7	1.65	18.14	0.00
Renault 16	4	95.5	1.42	19.34	0.01
Fuji Heavy Industries, Ltd. (SUBARU) (Japan):					
Subaru Star	4	66.44	1.85	12.60	0.88
Subaru Star	4	77.32	1.84	14.98	0.34
Rolls-Royce, Ltd. (England):					
Silver Shadow, Bentley "T" Series	8	412	1.79	14.00	0.44

1971 LIGHT DUTY VEHICLES—Continued

Manufacturer (Models)	Engine: Number of cylinders	Engine: Displacement (cubic inches)	Certification levels: Exhaust emissions: Hydrocarbons (grams/mile)	Certification levels: Exhaust emissions: Carbon monoxide (grams/mile)	Certification levels: Evaporative emissions: Hydrocarbons (grams/test)
Saab Aktiebolag (Sweden):					
SAAB 95 V4 Station Wagon, 96 V4 Sedan, 97 V4 Sonett	4	103.7	0.67	12.79	0.00
SAAB 99, 99E, 99EA	4	104.2	1.31	11.32	0.03
SAAB 99CA	4	114	1.25	18.18	0.00
Toyo Kogyo Co., Ltd. (Japan):					
Mazda 1200	4	71.39	1.79	16.32	0.00
Mazda 616	4	96.82	1.34	15.10	0.00
Mazda 1800	4	109.6	1.81	19.26	0.00
Mazda R100	2 rotary chambers	60.0 swept. vol.	1.76	12.92	1.40
Mazda RX-2	2 rotary chambers	70.0 swept. vol.	1.45	9.74	0.84
Toyota Motor Co., Ltd. (Japan):					
Corolla Series I	4	71.2	1.78	9.66	1.19
Corolla Series II	4	96.9	1.31	10.16	0.68
Corona, Mk II, Variation, Pickup	4	113.4	1.42	16.59	1.63
Crown, 2000 GT	4	137.4	1.64	14.46	2.73
Land Cruiser	6	236.7	1.08	9.84	0.00
Aktiebolaget Volvo (Sweden):					
Volve 142, 142E, 144, 145, 1800E	4	121	1.53	13.05	0.48
Volvo 164	6	182	1.51	8.81	0.72
Volkswagen AG (Germany):					
Deluxe Sedan 11, Karmann Ghia 14, Convertible 15, Station Wagon 22/24, Combi, Campmobile 23, Panel Truck 21, Pickup 26, Fastback Sedan 31, Squareback Sedan 36	4	96.66	1.77	14.91	0.00
Sedan 41/42, Squareback Sedan 46, Roadster 914/4	4	192.5	1.86	13.60	0.0 0

1971 HEAVY DUTY GASOLINE ENGINES

(Certification levels)

Manufacturer	Engine displacement (cubic inches)	Exhaust emissions: Hydrocarbons (PPM)	Exhaust emissions: Carbon monoxide (percent)
Chrysler Corp	225	185	1.23
	318	215	1.29
	360	189	1.24
	361	185	0.95
	383	165	1.23
	413	137	1.23
	440	127	0.85
Ford	240	249	0.31
	300	190	0.41
	330	234	0.76
	360	191	0.24
	361	247	0.82
	390	224	0.56
	391	259	0.77
	477	263	1.20
	534	199	0.35
General Motors (Chevrolet)	250	208	1.04
	292	178	0.96
	307	188	0.80
	350	206	1.12
	366	173	0.91
General Motors (Truck & Coach)	402	116	1.03
	427	167	0.94
	305	199	1.19
	351	219	1.27
	401	177	1.33
	478	172	1.13
	637	197	1.25
International Harvester	196	95	0.63
	232	161	0.99
	304	197	1.07
	308	167	0.96
	345	182	0.89
	392	169	0.71
	401	161	0.76
	406	125	0.79
	450	144	0.65
	478	193	0.65
	501	129	0.89
	549	147	0.79

CERTIFICATION DATA FOR HEAVY DUTY DIESEL ENGINES

Two engines of each engine family were tested for certification purposes. The results for each engine tested (engines No. 1 and No. 2) are listed below.

1971 HEAVY DUTY DIESEL ENGINES

(Certification levels)

Manufacturer	Engine family	Engine air aspiration	Models	Smoke emissions: Acceleration mode (percent opacity) Engine No. 1	Acceleration mode (percent opacity) Engine No. 2	Lug-down mode (percent opacity) Engine No. 1	Lug-down mode (percent opacity) Engine No. 2
U.S. MANUFACTURERS							
Allis Chalmers	25000	Turbocharged intercooled.	25000	30.92	25.47	8.72	6.02
	21000	Turbocharged.	21000	26.47	24.85	18.67	13.51
	3500	Turbocharged.	3500	23.3	23.8	14.2	15.4
Caterpillar-Tractor.	1145	Natural	1145, 1140	20.3	20.8	10.6	10.1
	1150	Natural	1150	23.9	26.4	11.4	13.4
	1160	Natural	1160	20.8	19.8	12.0	7.0
	1673C	Turbocharged.	1673C	11.7	18.1	2.5	3.2
	1674	Turbocharged and after-cooled.	1674	16.7	22.7	1.4	2.9
	1693T	Turbocharged.	1693T	23.7	19.7	3.0	3.0
	1693TA	Turbocharged and after-cooled.	1693TA	33.3	28.3	2.4	1.9
Cummins	855-NA	Natural	NHC-250, NHC-250D, NHH-250, NH-230, NHD-230, NHF-265, NHF-240, NH-160, V-1710.	11.9	10.9	13.7	12.9
	743-NA	Natural	NHE-180, NHE-195, NH-200, NH-220, NH-220D, NHH-220.	15.2	13.5	18.5	15.6
	855-TC	Turbocharged.	NT-350, NTC-335, VT-1710, NHHTC-335, NTC-290, NTC-270-E, NTC-270-CT, NHCT-270, NHCT-CT, NHTF-365, NHTF-295.	28.5	37.3	5.4	7.8
	855-TCA	Turbocharged and after-cooled.	NTA-414, NTA-400, NTA-370, NTA-420, NTC-350, NTC-335, NTC-320, NTC-310.	28.6	27.3	11.1	8.5
	V-903	Natural	V-903, V-320, V-300, V-280	16.5	17.1	18.1	16.6
	VIM/VINE	Natural	V8-265, V8-265D, V8E-235, V8E-235D, V6-200, V6-200D.	13.9	9.6	13.4	8.9
	VAL/VALE	Natural	V8-185-HT, V8-185, V8E-170-HT, V8E-170, V6-140-HT, V6-140.	17.4	9.5	14.9	4.3
	V-504	Natural	V-504, V-378	10.4	9.4	10.4	9.5
	464-TC	Turbocharged.	C-190, C-175	21.8	22.5	2.6	5.6
	464-SC	Supercharged.	C-180	23.4	16.8	13.1	8.2
	VT-903	Turbocharged.	VT-903	10.8	9.2	1.2	1.9
	927-NA	Natural	N-927-270, 260, 250	14.3	15.9	12.8	16.0
General Motors	53N	Natural	3-53N, 4-53N, 6V-53N, 8V-53N.	18.8	23.3	13.8	15.0
	71N (2 Valve)	Natural	6V-71N 2 Valve	4.3	4.1	3.6	3.0
	71N (4 Valve)	Natural	3-71N (4 Valve), 4-71N (4 Valve), 6-71N (4 Valve) 6V-71N (4 Valve), 8V-71N (4 Valve), 12V-71N (4 Valve).	6.1	11.5	2.0	4.0
	71T	Turbocharged.	8V-71T, 6V-71T, 6-71T	26.9	22.6	3.4	4.3
	Toro-flow	Natural	478 (truck) 478 (coach), 637	10.8	9.6	12.7	12.2
International Harvester	DVT-573B	Turbocharged.	DVT-573-B 230,260,280	31.78	32.18	13.44	12.43
	DV-550B	Natural	DV-550B	12.3	13.0	12.4	7.7
	DV-462B	Natural	DV-462-B	13.3	18.5	11.2	14.8
Mack	No. 1 (END 673E)	Natural	END 673E	2.95	3.08	2.49	3.58
	No. 2 (END 707)	Natural	END 707	5.34	6.96	6.01	7.63
	No. 3 (ENDT 675)	Turbocharged	ENDT 673, ENDT 673A, ENDT 673B, ENDT 673C, ENDT 675.	16.37	12.94	6.73	3.84
	No. 4 (END 864B)	Natural	END 864B, ENDD 864 B, END 864C, ENDD 864C.	5.65	6.05	7.71	8.58
	No. 5 (ENDT 864)[1]	Turbocharged	ENDT 864	6.72	8.53	4.99	5.95
	No. 6 (ENDT 865)	Turbocharged.	ENDT 865, ENDDT 865, ENDTB 865, ENDDTB-865.	26.99	30.86	3.05	9.04
FOREIGN MANUFACTURERS							
Ford (England)	2700 Parent bore.	Natural	380 C.I.D., 253 C.I.D.	6.62	6.39	5.79	7.44
Perkins (England).	No. 1	Natural	4.236, 6.354, NA-120	14.12	17.98	18.02	18.98
	No. 2	Natural	V8.510	9.0	16.5	7.3	14.1
AB Scania Vabis (Sweden).	No. 1 (D-8)	Natural	D-8 (ENDT 475)	7.22	5.67	6.72	9.14
	No. 2 (DS-8)	Turbocharged.	DS8 (ENDT 475)	6.89	10.56	1.79	4.06

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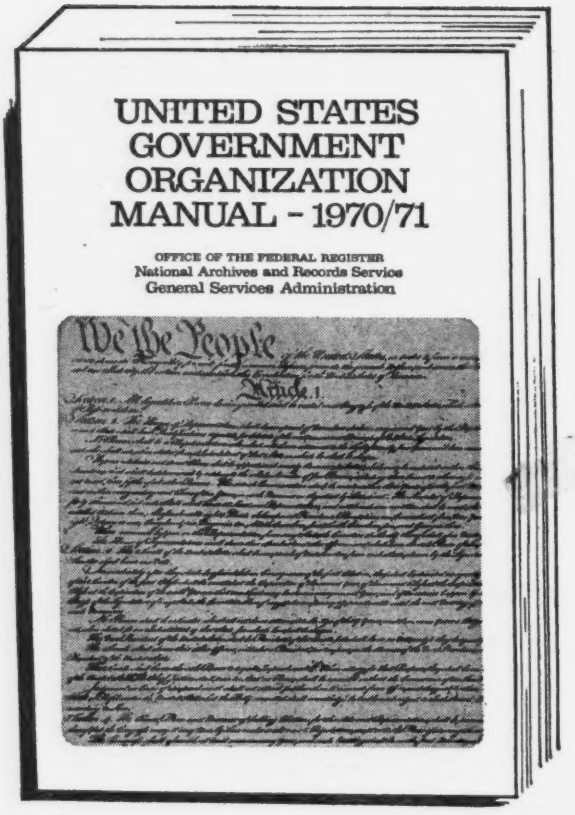

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